Women and Children's Services

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Nitrous Oxide Patient Education

What is nitrous oxide?

Nitrous oxide is a mixture of 50% nitrous gas and 50% oxygen. In the presence of a nurse, nitrous oxide is administered by the patient and inhaled through a mask or mouthpiece, according to personal need or preference. Nitrous oxide may not relieve all of the pain associated with labor contractions; but its use generally decreases the intensity of pain. (This blend of nitrous oxide is unlike the version commonly used by dental practices and often referred to as laughing gas.)

How does nitrous oxide work?

About 30 seconds before a contraction begins, you will inhale the gas mixture through a mask or mouthpiece. Inhaling nitrous oxide before a contraction begins helps the gas reach its peak effect at about the same time as the contraction reaches its peak, providing the greatest relief.

Does it have any side effects?

Some women have reported nausea after prolonged use. Medication to help ease the nausea is available if that happens. It can also cause some unsteadiness.

Am I able to be out of bed using nitrous oxide?

Yes, you may be out of bed while using nitrous oxide, with the assistance of a nurse and as long as you are steady on your feet.

Is there any extra monitoring required?

The only additional monitoring required when using nitrous oxide is a pulse oximeter to keep an eye on your oxygen saturation.

Can I use nitrous oxide and have intravenous narcotics at the same time?

No, the combination of narcotics and nitrous can slow your breathing so they would not be used together.

Can I use nitrous oxide in the tub?

Yes, however, we will want to be sure how you will respond to nitrous oxide before hydrotherapy is initiated.

Are there any reasons I could not use it?

Yes, you cannot use it if you:

- ⇒ cannot hold your own mouthpiece or facemask
- ⇒ have received a dose of narcotic in the past 2 hours
- ⇒ have pernicious anemia or a B12 deficiency for which you take B12 supplements

Are there any effects on my baby?

No, there are no known effects on the baby. Nitrous oxide is the only pain relief method used for labor that is cleared from the body through the lungs, so as soon as you pull the mask away, the nitrous oxide effect is gone within a breath or two.

Do I have to choose between either using nitrous oxide OR having an epidural?

A combination of nitrous oxide and an epidural may be used as long as the nitrous oxide is used prior to having an epidural.